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| **chemical-reactions** | **Chemistry** | **شعار-القسم** |
| Worksheet-9- |
| Displacement reactions  of metals |

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| Name: Class: 8 /……........ | |
| Book pages:399-400 | |
| 29 / 12 / 2011 | Date: |
| 8.13.7 | Core Standard number |
| *Sts. able to :*   1. ***Use*** *a reactivity series of metals to compare the reactivity of two metals.* 2. ***Understand***  *what is a displacement reaction of metals.* 3. ***Use*** *a reactivity series to predict if a displacement reaction can happen or not.* | Learning Objectives  Logo + text 2 |

1. Use the reactivity series to compare the reactivity of lead and Magnesium. Justify your answer.

**Magnesium more reactive than lead. Because the metal above in the reactivity series is the more reactive.**

1. What is a displacement reaction of metals?

**It is a reaction in which a more reactive metal displaces a less reactive metal from its compound.**

1. Complete the following chemical equations. Write " no reaction " if nothing happens.
2. Copper + Zinc sulfate 🡪 **no reaction( zinc more reactive than copper)**
3. Iron + Lead oxide 🡪**Lead + Iron oxide ( iron more reactive than lead).**
4. Zinc + Nickel sulfate 🡪 **Nickel + Zinc sulfate ( zinc more reactive than iron).**
5. Magnesium + Copper nitrate 🡪 **Copper + Magnesium nitrate ( Magnesium more reactive than Copper).**
6. This is the reactivity series for magnesium, iron, lead, copper and silver.

Silver copper lead iron magnesium

Reactivity increases

Complete the following table:



Put ( ) if no reaction, put (  ) where displacement occurred.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Solutions | | | | |
| Metal | Magnesium  nitrate | Iron nitrate | Lead nitrate | Copper nitrate | Silver nitrate |
| Magnesium | - |  |  |  |  |
| Iron |  | - |  |  |  |
| Lead |  |  | - |  |  |
| Copper |  |  |  | - |  |
| silver |  |  |  |  | - |

Write a chemical reaction when a displacement reaction happens:

**Lead + Copper nitrate 🡪 Copper + Iron nitrate.**